City of Seattle
www.cityofseattle.net
Public Access Network (PAN)
1999-2000 Annual Report

For several years, we have prepared a short annual report about the City's web site as a way to summarize our major initiatives and plans. There was so much going on in early 2000 that we did not have an opportunity to complete a 1999 annual report, so this report will cover both 1999 and 2000.

Mission

PAN's mission is to provide a 24-hour City Hall for the citizens of Seattle.

PAN's goals include:
- *To enable citizens to initiate every transaction required to secure City services*
- *To be a central resource for Seattle community information.*
- *To promote democracy on the local level by facilitating citizen debate on public issues and participation in government decision-making.*
- *To promote the City's core values, priorities and policies*
- *To promote Seattle worldwide as a good place to do business and to visit.*
- *To assure that every Seattle citizen has access to the Internet, an e-mail account, and basic computer literacy.*

Brief History

The City of Seattle Public Access Network (PAN) began with a dial-in Bulletin Board (BBS) System that went on-line in December, 1994. The City's Web site was added in February, 1995. All of the work was done in-house by City staff. The initial staff of four FTE spent over a year creating PAN.

In part because of the initial difficulty of getting information from City departments, the City's website always included content from other community and governmental agencies – for example, the Trade Development Alliance. Seattle also hosted many of the smaller jurisdictions web sites until they developed the capacity to do it themselves. As result, our initial web site functioned as a portal to government and community information from the very beginning, even though the term "web portal", had not yet been invented. The portal concept proved very popular, and we have continued to expand it.

In 1996, we completed the first redesign of the website. We created a navigation structure around which the customer was – a citizen, business or visitor. Portal pages organized information functionally under these customer-centric categories.

By 1998, the web site had grown to containing about 32,000 documents and 30 interactive applications and forms. All departments except Law had a web presence, although the Library and Seattle Center maintained separate sites. We added several centralized features, such as the press release database, and translated our first document into Spanish.

What information and services are available through the City's Website

Much of what we have written in previous annual reports remains true today. The 1996 strategic plan suggested that it was time for the City's website to move beyond posting static content to posting dynamic (changing, up-to-date) content and to more interactive applications. We have implemented most of the specific recommendations in that plan, and still struggle to get business leadership to implement others. And we have added functionality that was not possible at the time that report was written.

By the end of 2000, all City departments (with the exception of the Law Departments, whose site was just launched) had web sites. Most of our content is no longer static. On a typical day, several hundred files are added or modified. Many of these files are dynamic information such as campaign finance reports, while others are single large documents packed with information, such as the Comprehensive Annual Financial Report.

The site includes access to numerous databases, from business licenses to community resources to legislative information. Simple databases, such as one from Seattle Public Utilities that allows citizens to look up their garbage, yard waste and recycling pick-up days, provide important access to information that otherwise could only be found by calling a City employee.

Paying parking tickets and other Municipal Court citations remains the only financial transaction that can be done on the Internet. But there are many other business functions that can be carried out on the site, including checking the status of a building permit to registering as a City vendor to submitting campaign finance reports. A large proportion of City forms can be downloaded from the site, and an increasing number are interactive (that is, you can actually submit the form on line).

We continue to be involved in the support and facilitation of several sites that are not hosted on our server, but contribute to our mission and provide valuable information to Seattle citizens. These include non-profit sponsored efforts such as History Link, and intergovernmental sites such as "Taking Winter by Storm."

We also host numerous community service web sites, including the Seattle-King County Convention and Visitors Bureau, the Trade Development Alliance, Crime-Stoppers and several community and neighborhood non-profit web sites.

Use of the City's Website

Use of the City's website continues to grow dramatically. Our initial long-term goal, established in 1996, was to receive 1 million "hits" per month. That goal was achieved in January, 1997. By the end of 2000, we were receiving over 8 million hits per month. Use between 1999 and 2000 grew significantly, with an average of about 2.7 million hits per month in 1999 and over 7 million per month in 2000. *Note: those peaks at the end of 1999 will be explained later.*

Seattle Public Access Network
Total Number of Object Retrievals ("Hits")
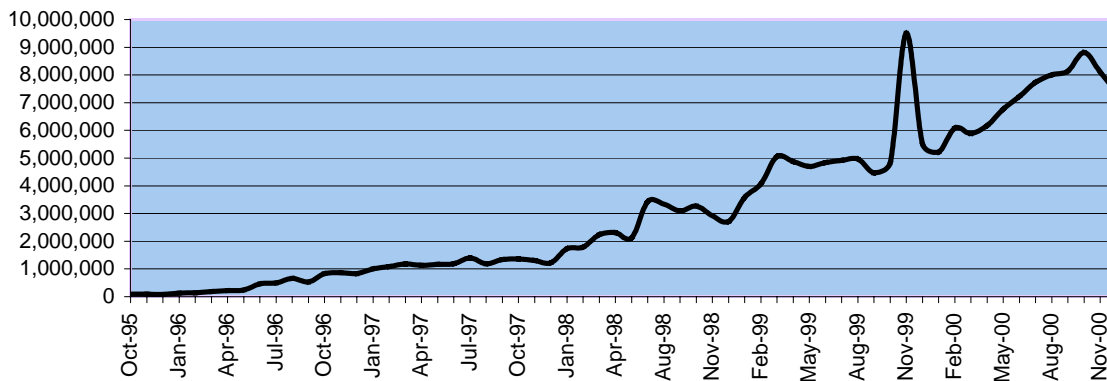
"Hits" are a common way to count web site use, but they are not the best way. Two better measures are **user sessions** (each time a user comes to the site, regardless of the number of pages he or she accesses), and **page views**, which measures how many pages are looked at by all users.

Number of User Sessions

Number of Page Views
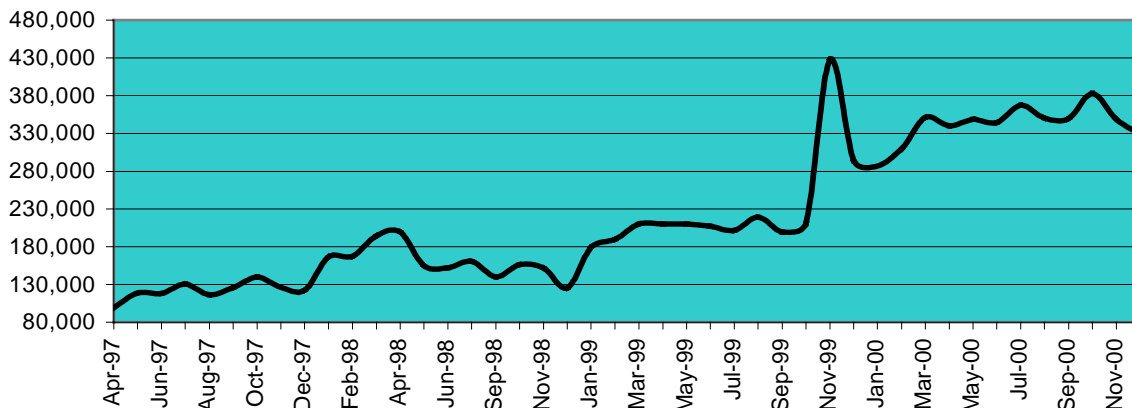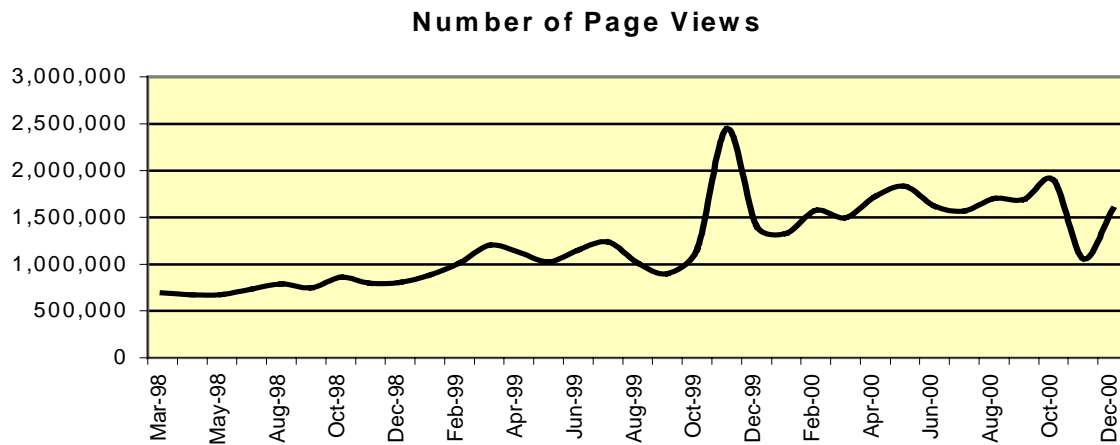
User sessions averaged over 117,000 per month in 1999, but grew to over 342,000 per month in 2000. Page views may be the best measure of the site's use, as it measures pages looked at without including graphic files. The growth in page views followed the same trends, with an average of about 638,000 per month in 1999 and almost 1.6 million per month in 2000.

The number of Seattle residents using the website continues to grow. In 1997, survey data indicated that 10 percent of residents had been to the City's website. In 1998 nearly one out of five (18 percent) City residents had been to the website – representing over one quarter (26 percent) of those with Internet access. By late 2000, 30 percent of all Seattle residents (36 percent of those with Internet access) had been to the City's website.

Users come from all over the world. In our 1997 annual report, we estimated that 5 percent of our site users came from outside the US.[1] Recent statistics show that about 8.5 percent of our users are from 85 countries outside the US, with about 4 percent from Canada. In the interest of obscure statistics, during one sample month we had more users from the Netherlands than from Texas
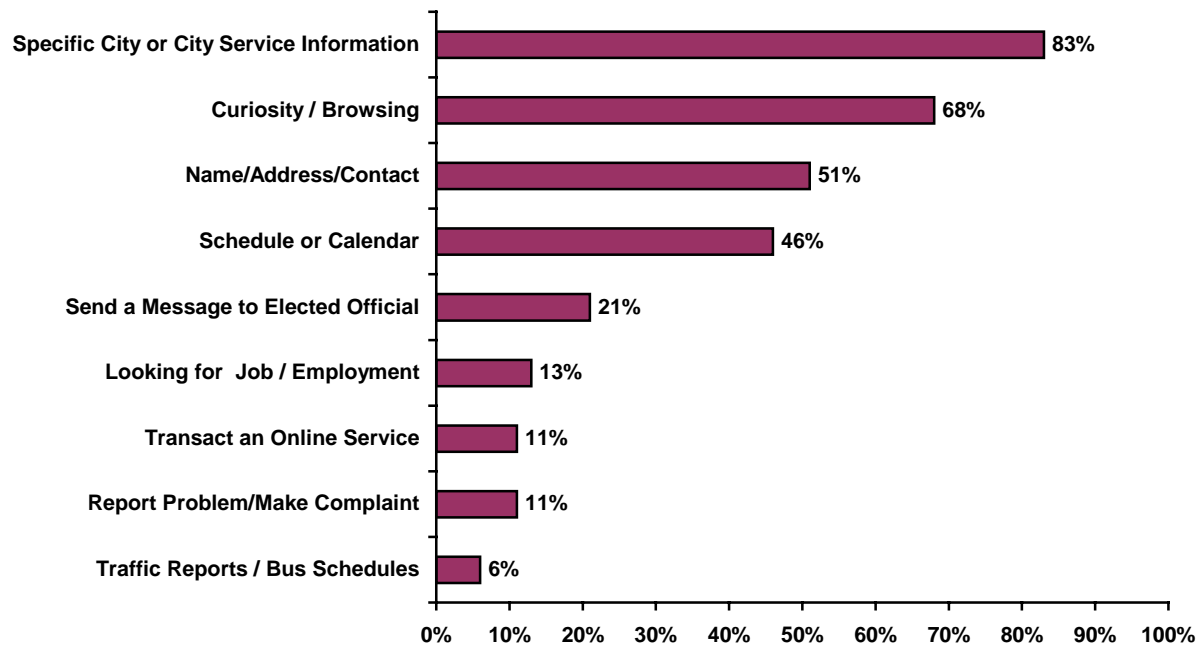
What On-Line Services are People Using?

Employment information, the City Directory of phone and e-mail addresses, and the WSDOT traffic map continue to be very heavily used functions. Some of the most popular pages from 1997 remain highly used in 1999 and 2000, including a number of pages with information for tourists and other visitors, including the Seattle Center, the Police, Fire and Transportation Departments. Both Seattle City Light and Seattle Public Utilities receive a large number of hits from both the public and City employees. The Crisis Clinic's Community Resources on Line

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[1] We don't keep track of individual users. Our statistics track the location of the users ISP, which heavily inflates areas such as Virginia, where large ISP's such as AOL are located. Some international users have US based ISP's, so international traffic is underestimated. The location of about 20 percent of our users is unknown.

continues to be heavily used, as does the Human Services Department Home Care Referral Program. Maps of all kinds are also heavily used.

The majority (83%) of those visiting the city's web site are looking for specific service information. However, a significant number (68%) are simply browsing. [2]
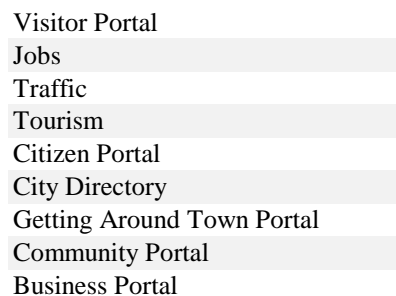
Category	Percentage
Specific City or City Service Information	83%
Curiosity / Browsing	68%
Name/Address/Contact	51%
Schedule or Calendar	46%
Send a Message to Elected Official	21%
Looking for Job / Employment	13%
Transact an Online Service	11%
Report Problem/Make Complaint	11%
Traffic Reports / Bus Schedules	6%

The vast majority of those who have visited the city's web site are satisfied with their visit – having found the information they were looking for.
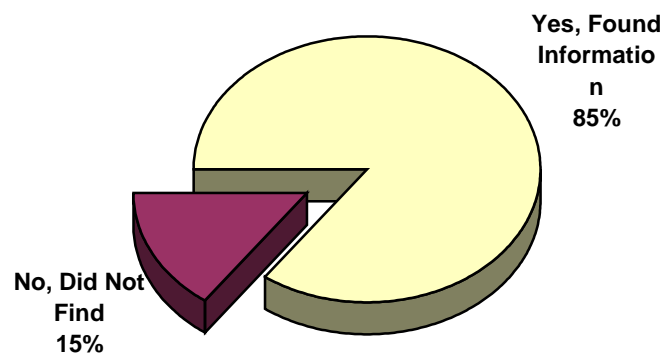
Yes, Found Information 85%

No, Did Not Find 15%

The reasons people come to the City's web site have remained fairly constant over the years. In surveys conducted between 1997 and 2000, 40-51 percent of users said they were looking for a name, address or contact, and 39-46 percent said they were looking for an event or calendar. In both surveys, approximately 20 percent used the web site to send a message to an elected official. But citizens overall have a mixed view of the effectiveness of e-mail in communicating about public issues. Half of our residents think e-mail is an effective way to communicate opinions about issues, and one third think it is effective in communicating with elected officials. Less than one quarter of the population believe it is ineffective, with a large percent in the middle.

Surveys capture the reason local citizens are using the web site, but can not give us a picture of total use since they do not include visitors and some business users of the site. The data below shows the top pages (except the home page) accessed during one month at the end of 2000.

Visitor Portal
Jobs
Traffic
Tourism
Citizen Portal
City Directory
Getting Around Town Portal
Community Portal
Business Portal

During that same month, the top level pages that people spent the most time using included: Arts and Entertainment; Education, Employment; Demographics, Housing, Points of Interest, Maps and the Permit, Public Safety, and the Getting Around Town Portals.

Highlights of Major 1999-2000 Accomplishments

Cityofseattle.net

In 1999 we got a new web address for our site – cityofseattle.net. Our web address, or more technically, our domain name, followed the standard city naming convention: www for world wide web; ci for city; seattle for us; wa for washington , and; us for united states. Logical in computer land, but in reality it was a mouthful to say and difficult for people to remember. We chose dot net because the City's web site is a network of information and services for citizens, businesses and visitors to Seattle. Dot com is an ending that was intended for use by businesses. Our site is a community and government site, with no commercial interests.

Using the new address has made it easier to market the site, and reduced (but not eliminated) requests from departments for their own websites.

Website Redesign

In mid-2000 we implemented a long overdue redesign of the site. Our previous design was innovative for its time, but it no longer met our needs. We identified five goals we wanted to accomplish with our new site: 1. Have a space on the homepage to post important information; let people know what type of information they could find under each of our major categories – citizen, visitor, and business; 3. Have a place on the home page to easily add links to hot web sites; 4. Create a navigation structure that could be used on each page to assist the user find the information her or she was looking for; and 5. Increase the number of "portal pages" to provide a useful, functional organization. As part of the redesign, we created many new portal pages – second level pages that organize information functionally. These pages make it easier for people to locate information on the site, as well as locate related links. Examples of portal pages include: Getting Around Town; Community Resources; Trade and Development and Arts and Entertainment.

City Highlights

As part of the redesign, we created a space on the home page to post news and important information. City Highlights is updated several times a week with short descriptions of new information on the site and timely community events. It is also used for emergency communications – but more about that in next year's report.

World Trade Organization (WTO)

Finally, the explanation for those large blips in site use in November of 1999. Seattle was host to the World Trade Organization (WTO) conference, and with it came huge protests and demonstrations. The City used the web to communicate general information to citizens and conference attendees before the event began. When demonstrations generated international press coverage and the City declared a no protest zone, people from all over the world came to the web site to get information and e-mail addresses for City officials. The City received tens of thousands of e-mails both protesting and praising how the City handled the events. Web site traffic for one week topped site use for the previous month and those levels only returned in early 2001. This event really showed how the Internet has changed communication on a global scale.

The City established several task forces to review the WTO events, and our web site was used to communicate the task forces work to the public. Below is an example of the very sophisticated maps that were created to track WTO related events hour by hour.

Live Video Streaming

Seattle was one of the first cities to video stream its government access TV channel programming, beginning in 1998. In 2000, we added the capacity to stream our live TV channel signal – meaning you could watch whatever was on TV on the Internet at the same time.

Several interactive meetings and public hearings were held during which citizens could submit testimony in person, by phone and/or by e-mail. As an on-going pilot project, meetings of the City Council Public Safety and Technology Committee are broadcast and streamed live, and e-mail comments may be sent during the meetings.

We continue to offer streamed video on demand on the website – audio and video of popular meetings and other productions, in their entirety.

Electronic Government

Parking ticket payment remains the only financial transaction available on the web at this time. Payment processing is now completely automated.
During 1999-2000, the number of on-line forms and databases was greatly expanded. Online forms range from a Request to Reschedule Jury Service, to ordering free Neighborhood publications to reporting Potholes. An example of a very useful new searchable database was Garbage, Yardwaste and Recycling Pick-up schedules;

We also added some very innovative applications, such as our Consultant Roster Program Application. When this new program was created in early 2000, it was set up so that consultants could complete their applications completely on-line; the database is then available to City employees through our intraweb, Inweb, to search for pre-qualified consultants.

Budget and Staffing

The budget for 1999 and 2000 remained relatively constant over funding available in 1998 - not recognizing the dramatic increase in volume and complexity of information and services provided on the website.

1995	1996	1997	1998	1999	2000
$440,266	$485,879	$487,597	$726,000	$763,000	$843,603

Staffing levels remained constant, but we had many staff changes in the last two years. Hiring staff was a challenge here in dot com land, but the City's new IT Human Resources program helped us put together an excellent team. Our team includes our Internet and Cable TV Director, a systems administrator, a content manager, two web site designers and two application developers. An assistant systems administrator and management systems analyst also help us

with some web applications. Our staff, particularly the application staff, now spend much more time maintaining applications rather than developing new ones. Because our system has become much more complex, our systems administrator also spends much more time responding to crises and problems.

Responsibility for server support was shifted from our team to the central server team in late 2000. However, the central server team had funding for only ½ FTE, which was not sufficient to free up any significant amount of our resources.

The web development capability within several departments increased over this two-year period, but remains very uneven. Several departments continue to rely on temporary staff or interns, or have no in-house web staff.

Awards

The City's website received many awards in 1999-2000. In 1999, we were a finalist in the Global Bangemann Challenge, a project of the City of Stockholm and the European Union to recognize outstanding uses of technology to serve peoples needs.

In 2000, Seattle was named best local government website by Government Technology Magazine and the Center for Digital Government.

"With the redesign, the Seattle Web site now serves its constituents much better while still appealing to the cybertourists," said Bryan Gold, director of communications at PTI. "Residents can pay parking and traffic tickets online, comment on street improvements online and view videos online, all thanks to improved navigation flow. In addition, the city keeps the site current with a section on 'hot information.' It's clear that city staff put much thought and effort into the endeavor. So it's a good thing that the city is headquarters to a number of coffee bar chains, because there is nothing decaf about this site."

Our website was also named "Best Local Government Site" in the third annual *Seattle Times* Best of the Web Contest in 1999. One judge described it as "mind-blowingly comprehensive."

The National Association of Telecommunications Officials and Advisors (NATOA) also honored our website. In 2000, the TVSea's site won a first place award and the overall site placed second. TVSea's website was also honored with a second place award in 1999.

Marketing

To quickly get the word out to the public about our new web address, we undertook our first marketing effort. In October, 1999 we purchased Metro bus signs. Bumperstickers with a similar design were affixed to City vehicles, and have been distributed widely. TVSea also produced some Public Service Announcements (PSA's) to help market the web site. Perhaps our modest advertising campaign, rather than WTO, contributed to the dramatic increase in site usage at the end of 1999.

Back-end Systems

Throughout this two-year period, our server environment became much more complex. We created a development platform so that applications could be designed and tested before they were deployed. We also segregated our web applications from our web pages and set up separate servers for several specific functions, creating a server farm of 8 machines for PAN at the end of 2000. (We also manage several additional servers for the City's intranet, In-Web).

In 2000, Arthur D. Little was hired by the City's technology planning team to evaluate and make recommendations on our web infrastructure. This study made some valuable recommendations, particularly on the architecture for web application development.
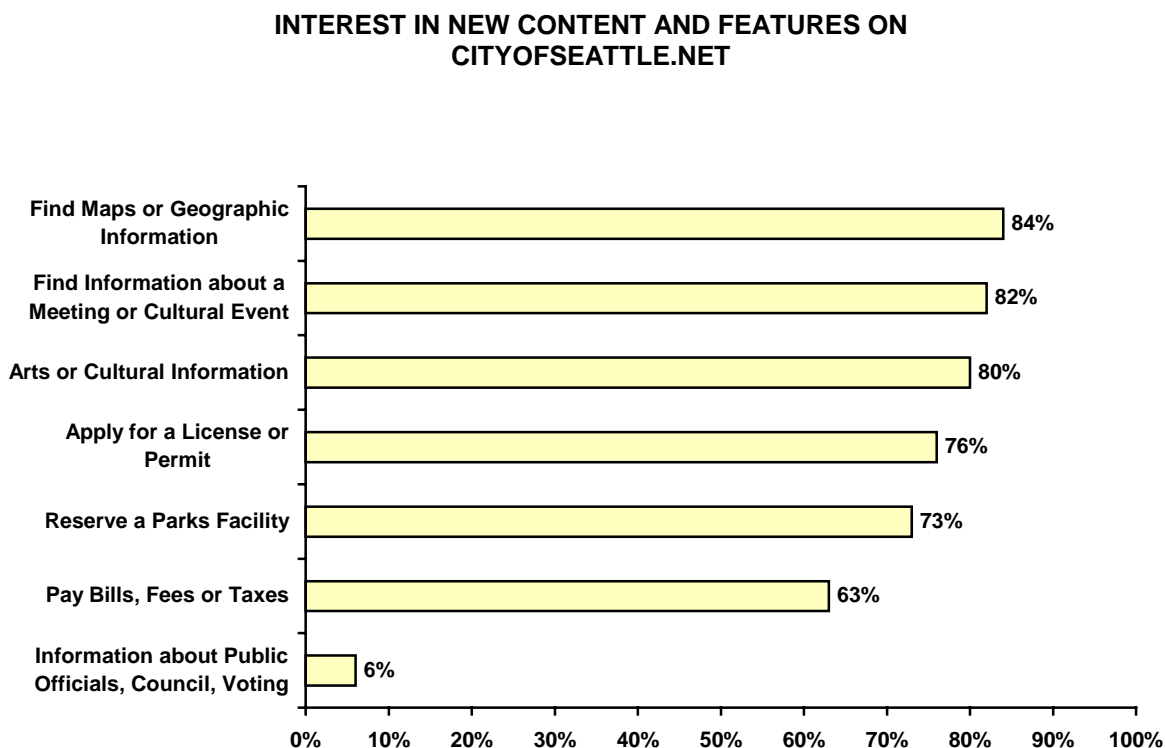
Citizen Comments and Desires

Seattle's web site has always been user focused, so the needs, desires and comments from our citizens and businesses are important to us. Many of the features and links on our site have come from the suggestions of citizens, through e-mail or surveys. We were particularly interested in receiving suggestions on our redesigned site, and made several changes as a result of citizen comments – the most significant was to enlarge the font on the home page, which many people said was too small.

Many other cities have asked how we locate all of the community links that are included on our site. Initially, we searched the web periodically seeking out local sites of community interest.

Now, citizens contact us frequently with suggestions for additional links. The following is a typical example:

> *"I have a suggestion for another community education link on your web page. "Odyssey: The Maritime Discovery Center," just launched a new web page which has many educational resources and links to information about the Maritimes. The address is www.ody.org."*

In the technology survey conducted last November, we asked citizens who had been to the City's website what additional features and functions they would like to see.

INTEREST IN NEW CONTENT AND FEATURES ON CITYOFSEATTLE.NET

Feature	Percent
Find Maps or Geographic Information	84%
Find Information about a Meeting or Cultural Event	82%
Arts or Cultural Information	80%
Apply for a License or Permit	76%
Reserve a Parks Facility	73%
Pay Bills, Fees or Taxes	63%
Information about Public Officials, Council, Voting	6%

The most common request that we receive through both surveys and comments is for more geographic information. Departments also identify this as their number one desire for their sites. Finding information about meetings and/or cultural events; applying for licenses and permits; and reserving park facilities also are highly desired by users.

A summary of some comments we have received from our on-line survey is included as Appendix A. Appendix B contains some additional useful information from a national citizen survey about what people want most and expect the benefits to be from electronic government.

Near Future Plans

Below are brief descriptions of some of our key initiatives for 2001. These do not at all represent all of the projects and applications that individual City departments are working on.

Content Management Software
Approximately 35,000 pages and 70,000 files, it has become critical to acquire content management software. Content Management Software will enable us to create templates, organize the flow of updating pages, and better manage keeping the site up to date.

Web Communications Strategy
In early 2001, the Mayor's Office will be initiated a web communications strategy, with the following goals and desired results:

Goals
To make sure that all City department websites are customer-focused, easy to use, and frequently updated, allowing users to find what they need quickly and easily. To reduce unnecessary paperwork and conduct more City business over the web.

Desired Results
- *Improved content: Posted information should be useful and usable, emphasizing the City's key messages, e.g., affordable housing, transportation, social services, delivery of basic services.*
- *Improved compliance with design guidelines: Within the City's web & design standards, departments are encouraged to have their own identity and creativity within the City family.*
- *Improved site maintenance: Department sites are to be maintained and updated regularly.*

As part of this effort, all departments will be asked to complete a Web Site Self-Assessment. The self-assessment has multiple purposes, including raising the visibility of the web effort to department heads, and helping raise awareness of the standards and centralized features of the site. It will also describe department's plans and dreams for their sites, and identify areas where they need assistance.

Department Web Site Redesigns

Following the site redesign in mid-2000, many departments have recently or are in the process of redesigning their individual sites. The Central Web Team is providing assistance to many of these departments, creating templates that match the overall design of the site, while still providing some unique identity. We expect this to continue throughout 2001.

Maps

Citizens consistently rank geographically displayed information as their highest priority addition to our web site. The existing real property application, which allows the user to view base property maps and City-owned property, is very heavily used. In order to provide these applications, departments have had to rely on the City's GIS staff in Seattle Public Utilities. We expect that the GIS group will be adding significant mapping capacity to the web site this year. In addition, we are working with the Strategic Planning Office on some new technology for mapping census data, which we think, will be very useful.

Web Governance Group

For its first few years, an interdepartmental group known as the PAN Management Committee helped provide guidance to the web team on the creation and evolution of the site. The committee did not meet for the last few years. We are planning to reconstitute a Web Governance Group in mid-2001 with a membership of City business, public information and technology leaders. This group will provide guidance and leadership to the next level of web development efforts.

Democracy Portal

In 2000 we began experimenting with using our TV channel and web site together to provide more ways for citizens to interact with City Council and to comment on issues that the City

Council was considering. Meetings of the Public Safety and Technology Committee are broadcast and streamed live, and e-mail comments are taken during the meetings. We supported several such interactive public hearings held by the Council.

We want to work with the City Council to further the use of information technology to involve our citizens in governance – making it easy for people to comment, testify, discuss, propose and otherwise be involved in decisions that affect them.

Rona Zevin
Director, Internet and Cable TV
Department of Information Technology
May, 2001

Appendix A
Selected Citizen Quotes from Web Site Survey

There is a continual on-line web site survey to get citizen comments and suggestions. The current survey was posted in mid-2000 in conjunction with the site redesign; therefore many of the comments we received related to the new design. About 90 percent of the comments were positive, sometimes including suggestions. About 10% were critical.

Praise and Critiques:

"The new design is easy to use, easy to read, and pleasant in appearance."

"I used this months ago to find out information on where to go hiking. Now that I'm a homeowner, I'm finding your community resources even more useful, more than any other sites. I'm forwarding this link to friends and family who are thinking of relocating here. You also have the most extensive listing of arts/entertainment links. Good job. I really appreciate this service."

"Helpful, user friendly."

"Great web site. This is a very well put together city web site. One of the best I've visited."

"The more subject tabs, the better."

"I am a Web developer, and in my professional opinion, you folks have done an outstanding job. There are so many bad gov sites, I'm very impressed to see a really good one."

"I also found the new look and design to be a fresh and exciting change."

"Very well set-up. One of the easiest web sites I have ever used. I spend most of my time at work on line for my job so that tells you how much I am on line."

"Great layout, very functional pages, very useful information. Web crew gets A+ from me!"

"Overall, this web site is a GREAT way for residents to learn about and participate in current (and complex) matters of interest in the city…Please keep "decoding" all the "alphabet soup" of PAN, etc. There are so many agencies and studies and alternatives to keep straight!"

"I would like to see something on the web page that has all the neighborhood names with events calendar and contacts for a variety of neighborhood "offerings" w/ contacts. Maybe start out with a city map and have people click on it to pull up the area neighborhoods that they want to go to. That way if someone wanted to find out in the neighborhood next to them "click" and they're on it!"

"What a terrific web site! All the information I was seeking was readily and conveniently available. I have been seeking similar information from 25 major cities in Canada and US. The Seattle web site is by far and away the best. Good work!"

"I regret you don't have the "what's new" option any longer; it was a convenient way to see what changes there have been in the site."

"It is excellent overall, one of the best I have visited, with definite "citizen-focus". But if you are an elderly citizen looking for services targeted to your age group, how do you proceed?"

"I inadvertently stumbled upon the City of Seattle's new web site while looking for a valid email address. I was able to find, not only the valid email address, but a wealth of other information to assist me as an

understanding of UW's Professor Emeritus Richard Morrill's Geography 490 Class for "The Seattle Region.""

"In less than two minutes, I found precisely what I sought - "Start a New P-Patch!" - you deserve the awards!"

"Photo Archives did not show up many Post-Modern buildings."

"I want to know why I can't make a payment for Seattle City Light over the Internet. You guys need to update yourselves. It would sure cut down on the traffic in town to keep people off the streets paying bills which can easily be done on the Internet."

"Not easy to find a brochure guide to be sent by mail."

"The site is very clean and concise, well thought out and extremely helpful, a great reflection on this cutting edge city. Include more audio and movies and maybe a live cam or two would be nice added options. Thanks for your hard work!"

"It would be nice to have all the area hospitals listed to include telephone, map, services."

"I think that you need an omniport installed to better represent the other languages."

The most frequent critical comments are (from about 10% of responders)

- Citizen could not find what they were looking for (referred to the appropriate department for follow-up). In other instances the citizen reports the new navigation structure is too convoluted, takes too many clicks, etc.

- Difficulty using the search engine or finding what they need with it (though these comments have dwindled since we improved it recently).

- Font size we use is too small (got several comments about this and enlarged the font size for the home page links).

- Wish we had more locator maps to find neighborhood info from a visual interface.

A strong critique of our new navigation system:

"I am trying to find information on filing a youth/child at-risk petition and can find absolutely nothing about it. The menu structure just caused me to hunt around aimlessly longer than I would have with the previous version of the site. Visually, things are more appealing. It is presented too much as a maze or puzzle, without retaining context. Thus, navigation is a very unpredictable experience and not helpful. It did not get me to the information I am looking for."

And our silliest comment:

"Make it more like Star Trek. The page should have sound recognition. A lot of people cannot spell very well. When you say "virtual" the page should resemble an IMAX movie. I want to BE there!"

Appendix B

Americans see the benefits of e-government as more than better or more cost-efficient services—they regard e-government as a way for citizens to become better informed and more involved in government.

While the public sees e-government as simply better government, they also see it as making an important contribution to a more participatory democracy. Nearly three-quarters (72%) of adults, including two in three (64%) who do not use the Internet, believe that people's ability to communicate with their elected representatives will get better with e-government. That the public evaluates e-government not only as consumers of government services, but also as citizens is confirmed by the following results.

Most Important Benefits Of E-Government

Legend:
- ☐ Public
- ■ Government officials

Benefit	Public	Government officials
Government more accountable to citizens	36%	19%
Greater public access to information	23%	34%
More efficient/cost-effective government	21%	17%
More convenient government services	13%	23%
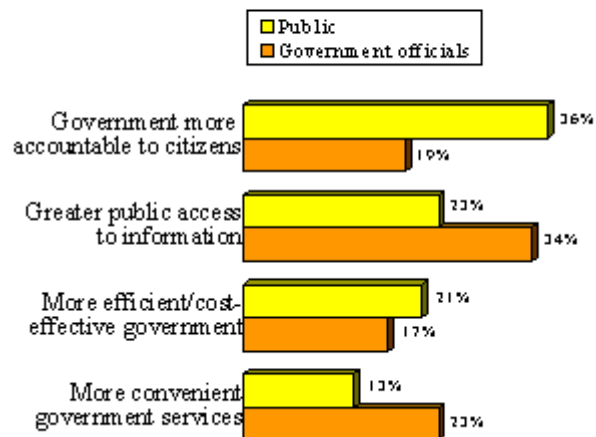
1. When asked to name the most important outcome of e-government, 59% of adults choose greater participation (36% more accountable government) and a more informed citizenry (23% greater public access to information), compared with 21% who opt for a more efficient and cost-effective government and 13% who select more convenient government services.

2. Nearly three in four (72%) Americans believe that their ability to communicate with elected representatives will get better with e-government, and a majority (54%) believe that government accountability will improve.

The full survey can be found at: http://www.excelgov.org/egovpoll/report/contents.htm